Ali Satvaty



EDUCATION

Ph.D. in Privacy & Safety of LMs

Sept. 2023 - Present

Faculty of Science and Engineering – University of Groningen – the Netherlands

• Supervisors: Prof. Dr. Fatih Turkmen, Prof. Dr. Suzan Verberne

M.Sc. in Artificial Intelligence – Computer Engineering

Sept. 2020 - June 2023

Faculty of Computer Engineering - Sharif University of Technology

Tehran - Iran

• **GPA:** 4/4 (18.00/20)

• Supervisor: Prof. Dr. Hossein Sameti

B.Sc. in Control and Robotics - Electrical Engineering

Sept. 2014 - June 2019

Faculty of Electrical and Computer Engineering – University of Tehran

Tehran - Iran

• **GPA:** 3.7/4 (17.02/20)

• Supervisor: Prof. Dr. Amir Abbas Shayegani

Diploma in Mathematics and Physics

Sept. 2010 - June 2014

NODET (National Organization for the Development of Exceptional Talents)

PUBLICATIONS

EL-MIA: Quantifying Membership Inference Risks of Sensitive Entities in LLMs
A. Satvaty, S. Verberne, F. Turkmen

Nov 2025, Under review

Memorization is Language-Sensitive: Analyzing Memorization and Inference Risks of LLMs in a Multilingual Setting

A. Satvaty, A. Visman, D. Seidel, S. Verberne, F. Turkmen Jun 2025, Accepted at L2M2

Undesirable Memorization in Large Language Models: A Survey

A. Satvaty, S. Verberne, F. Turkmen

Jan 2025, Under review

Docalog: Multi-document Dialogue System using Transformer-based Span Retrieval S.H. Alavian, A. Satvaty, S. Sabouri, E. Asgari, and H. Sameti May 2022, ACL

A Change of Heart: Improving Speech Emotion Recognition through Speech-to-Text Modality Conversion

Z.S. Taghavi, A. Satvaty, H. Sameti

ICLR 2023

RESEARCH EXPERIENCE PhD Candidate,

Bernoulli Institute for Math, CS and AI

Experience Groning

Groningen - the Netherlands Sept 2023 - Present

I am currently in the third year of my Ph.D. program at the Bernoulli Institute, where my research focuses on the privacy and safety aspects of large language models (LLMs). My doctoral work is conducted as part of the LESSEN project¹, which aims to develop a low-resource conversational assistant.

During my first year, I conducted an in-depth survey of the literature on privacy in LLMs. Given that many privacy risks originate from model memorization, I chose to explore this area more deeply. This led to the publication of a comprehensive survey on memorization in LLMs. Building

 $^{^{1} \}rm https://lessen\text{-}project.nl$

on that foundation, I carried out a comparative analysis of memorization patterns in high-resource versus low-resource languages to better understand disparities in vulnerability.

I am excited to contribute to this important research initiative and remain committed to advancing our understanding of the privacy and security challenges in language models.

Master's Thesis,

Under the supervision of Prof. Hossein Sameti

Tehran - Iran

2020 - 2022

My master's thesis focused on improving the performance of conversational question answering models. After studying and implementing different ideas within the field, I participated in ACL's MultiDoc2Dial workshop, where our model stood fifth. Afterwards, in my thesis, I proposed a method to detect irrelevant turns in the history of CQA, resulting in an improvement of the baseline.

Work

AI Developer, HARA AI

EXPERIENCE

Tehran - Iran

Sept 2022 - March 2023

In my previous role as an AI developer, my responsibilities involved exploring and analyzing state-of-the-art (SOTA) models for specific tasks, as well as implementing and enhancing models. During that time, I mainly focused on machine vision tasks, particularly OCR and anomaly detection.

Backend Developer, Idearun Co.

Tehran - Iran Jan 2019 - Jan 2020

Freelance Python Developer, Home

Tehran - Iran May 2017 - Jan 2020

TEACHING ASSISTANTSHIP **Data Privacy**

by Prof. Dr. F. Turkmen (Fall 2025 & Fall 2024) University of Groningen

Artificial Intelligence

by Dr. M. Hossein Rohban (Spring 2023) Sharif University of Technology

Speech Processing

by Prof. Dr. Hossein Sameti (Spring 2023) Sharif University of Technology

Information Retrieval

by Prof. Dr. Hamid Beigy (Fall 2022) Sharif University of Technology

Deep Learning

by Prof. Dr. Hamid Beigy (Fall 2022) Sharif University of Technology

Automatic Speech Recognition

by Prof. Dr. Hossein Sameti (Spring 2022) Sharif University of Technology

Security and Privacy in Machine Learning

by Dr. M. Hossein Rohban (Fall 2021) Sharif University of Technology

Communication Systems I

by Dr. Aliazam Abbasfar (Spring 2016)

University of Tehran

Linear Control Systems Laboratory

by Dr. Tooraj Abbasian (Spring 2016)

University of Tehran

Honors & Awards

Ranked 4th & Winner of the Most Efficient Method

2024

CLAS 2024: The Competition for LLM and Agent Safety (NeurIPS 2024 Competition Track)

Ranked $5^{\rm th}$ 2022

ACL's MultiDoc2Dial challenge leaderboard

Ranked 4^{th} 2021

	Sharif University of Technology's AI Challenge Ranked 4 th Nationwide Information Technology graduate university entrance exam, among 30,000 Ranked 12 th Nationwide Artificial Intelligence graduate university entrance exam, among 35,000 Ranked 1 st Sharif University of Technology's Bot Cup contest Received scholarship 2017 From the university of Tehran's faculty of Engineering as an exceptional talent studen	2020 2019 7 - 2018
	Ranked 192 st Nationwide mathematics university entrance exam among 210,000 participants (top 6 NODET Being accepted in the National Organization for Development of Exceptional Talents	2014
SKILLS	Operating Systems: Linux and Windows Programming: Python, MATLAB, C/C++/C#, Java, SQL, Html/CSS Libraries: PyTorch, Tensorflow, Scikit-learn, OpenCV, Pandas, NumPy, Matplotlib, S Software: Git, Docker, Mysql, MongoDB, Arduino, AutoCAD, WordPress, Label-str Typesetting: LATEX, Microsoft Office Languages: Persian (Native), English (Fluent), Arabic (Basic)	
Hobbies	Boardgames, Podcasts/Reading, Gym, Friends	
References	Fatih Turkmen Associate Professor, Faculty of Science and Engineering, University of Groiningen Suzan Verberne Beigy@sh Professor, Leiden Inst of Advanced Computer Science, Leiden University	